

TECHNICAL SPECIFICATIONS

WASHINGTON STATE FERRIES

M.V. RHODODENDRON DOCKSIDE

CONTRACT NO. 00-7184

TECHNICAL SPECIFICATIONS

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CONTRACT NO. 00-7184

TECHNICAL SPECIFICATIONS

1 **For the following Technical Specifications, the Contractor is to provide all labor,**
2 **material and equipment to accomplish each and every Bid Item unless otherwise**
3 **specified.**

4
5
6 **For the following Technical Specifications, the Contractor is to provide all labor,**
7 **material and equipment to clean and gas free all spaces including any tanks, piping**
8 **and reservoirs associated with the Work, as necessary, and obtain a Marine Chemist**
9 **certificate for “SAFE FOR WORKERS”, and “SAFE FOR HOT WORK”.**
10 **Maintain the certificate during the course of the Work. Provide fire watches as**
11 **required.**

12
13
14 **The Specification Item sub-titles in brackets are for WSF internal use only, for Life**
15 **Cycle Cost modeling. Bidders should ignore such bracketed sub-titles.**

**MARINE COATING SPECIFICATION AND COLOR
SCHEME**

**(ATTACHMENT NO. 1)
(WSF 001)**

Area Preparation, Surface Preparation, Grit Blasting, Paint Coatings, and Inspection for Vessel's hull, curtain plates, casing and super structure shall be in accordance with Attachment No. 1, Washington State Ferries' Marine Coating Specification 1/03 unless otherwise specified in the following Specifications.

ELECTRICAL INSTALLATION SPECIFICATIONS

**(ATTACHMENT NO. 2)
(WSF 002)**

Details of all electrical installations shall be in accordance with Attachment No. 2, WSF Electrical Installation Specifications, Rev. 09/02 unless otherwise specified in the following Specifications.

GENERAL CONSTRUCTION REQUIREMENTS

**(ATTACHMENT NO. 3)
(WSF 003)**

Details of all structural, mechanical and electrical installations shall be in accordance with Attachment No. 3, General Construction Requirements unless otherwise specified in the following Specifications.

GENERAL REMOVAL CATEGORIES

**(ATTACHMENT NO. 4)
(WSF 004)**

Details of all removal categories and requirements shall be in accordance with Attachment No. 4, Removal Categories and Requirements, unless otherwise specified in the following Specifications.

1 **1. BERTH VESSEL**

2 **{STRUCTURAL PRESERVATION}**

3 A. **M.V. Rhododendron Vessel Particulars:**

4 **Length: 227' 6", Beam: 62' 0", Draft: 10'-0", Gross Tons: 937**

5 B. Berth Vessel for the work specified herein and any necessary repairs.

8 **2. TEMPORARY SERVICE**

9 **{STRUCTURAL PRESERVATION}**

10 A. Install one (1) telephone on board in a location designated by the Vessel
11 Staff Chief Engineer. The telephone is to have one (1) outside line with
12 toll-free access to Seattle and vicinity and, if different, one (1) line for
13 local numbers. The telephone shall have touch-tone service if available
14 from the Contractor's telephone system.

15 B. Provide and maintain electricity, water, sewage removal, safe lighted
16 gangway and trash removal services while Vessel is in the Contractor's
17 facility.

18 C. Provide safety and security for the entire Vessel throughout the
19 construction, repair or preservation period until such time as the WSF
20 Representative has accepted re-delivery of the Vessel. Every reasonable
21 precaution shall be taken to protect the Vessel from the hazards of fire,
22 flooding, pilferage, malicious damage, and other events including
23 cataclysmic phenomena of nature.

24 D. Provide and maintain comprehensive and effective fire prevention, fire
25 detection, and fire fighting programs and systems sufficient to ensure the
26 safety and integrity of the Vessel. Provide personnel trained in shipboard
27 fire fighting techniques and also trained to cooperate with and assist local
28 fire fighting organizations. Provide sufficient shore fire hoses to ensure an
29 adequate supply of fire fighting water, at sufficient pressure, and maintain
30 an adequate number of tested fire-hoses aboard the Vessel to effectively
31 fight fires at any location in the Vessel. Provide fire temporary alarm
32 system until dock trials.

33 E. Provide and maintain portable fire extinguishers in sufficient quantity, and
34 of the appropriate type, to combat local fires of any class. Provide
35 sufficient fire watches, including roving watches as may be required, to
36 ensure that fires that may be inadvertently started by welding sparks or
37 heat, electrical malfunction, or spontaneous combustion are detected,
38 reported and promptly extinguished.

39 F. Provide temporary cathodic protection and submit weekly cathodic
40 protection readings to WSF Inspector.

41 G. Provide portable toilet facilities with hand washing facilities in the vicinity
42 of the Vessel gang way for the sole use of the Vessel crew, with weekly
43 scheduled cleaning and maintenance.

- 1 H. Provide a certified non-contaminated bottle water dispenser with hot and
2 cold taps in a location designated by the Vessel Staff Chief Engineer.
3 Provide sealed bottles of water to the location of the dispenser, estimate
4 five (5) gallons per day.

5 **3. INSTALL DECK HOUSE EXTENSION**
6 **{SECURITY}**

- 7 A. Install a new electronic equipment enclosure shown on **WSF Dwg. 8601-**
8 **639-003-01**, M/V Rhododendron, Electronic Equipment Room Structural
9 Arrangement and Details, **WSF Dwg. 8601-639-012-01**, M/V
10 Rhododendron, Electronic Equipment Room Ventilation Arrangement and
11 Details and **WSF Dwg. 8301-639-090-01**, M/V Rhododendron, Electronic
12 Equipment Room Electrical Installation Passenger Deck, No. 2 End in this
13 Specification.
- 14 B. Electrical installation for the new enclosure shall be in accordance with
15 **WSF Dwg. 8601-639-090-01**.
- 16 C. Remove and reinstall all interferences necessary to complete this Item,
17 including but not limited to, Insulation, bulkhead panels, benches and
18 overhead panels.
- 19 D. The removed windows and window frames shall be removed as **Category**
20 **A** as shown in **Attachment No. 4, WSF 004** General Removal Categories.
- 21 E. Provide one (1) new 30 x 80 weather tight access door as shown on **WSF**
22 **Dwg. 8601-639-003-01** and it shall be prepared to accept a Best Access
23 Systems Cylinder Lock using Best Access Systems Template Number
24 W13, Rev B.
- 25 F. Relocate existing name board to a position on the extended Hurricane
26 Deck, final location shall be as directed by the WSF Construction Master.
- 27 G. Relocate bench seat in way of new structure, to outboard of the new
28 longitudinal bulkhead. Modify bench as necessary to allow this
29 relocation. Final location shall be as directed by the WSF Construction
30 Master.
- 31 H. Relocate stanchion, hurricane deck drain and scupper in way of new
32 structure, to outboard of the new longitudinal bulkhead. Align with
33 existing stanchions and drains. Final location shall be as directed by the
34 WSF Construction Master.
- 35 I. Install a WSF furnished 15 lbs U.S. Coast Guard Approved CO2 fire
36 extinguisher in the Electronic Equipment Room in a location designated
37 by the WSF Inspector.
- 38 J. Install the ventilation system for the Electronic Equipment Room as
39 shown on **WSF Dwg. 8601-639-012-01**.

- 1 K. Install two inch (2") thick vinyl covered USCG approved hull board
2 insulation on insulation pins, nine inches (9") on center, to the overhead
3 and exterior bulkheads. Place one inch (1") thick vinyl covered USCG
4 approved insulation around all stiffeners. Tape all joints. Weld a two inch
5 (2") high bounding bar to the deck edge.
- 6 L. Replace all disturbed structural, thermal, and acoustical insulation to
7 match original installation.
- 8 M. Prepare the interior deck to SSPC-SP 6, Commercial Blast Cleaning.
9 Apply two (2) coats of Benjamin Moore Low Cure Epoxy Mastic
10 M45L/M4684, Off White, to obtain a minimum of, 3 mils (DFT) each to
11 all prepared surfaces. Hand stripe all edges. Apply a topcoat of Benjamin
12 Moore Aliphatic Acrylic Urethane DM74/DM7585, 2-4 mils DFT, to
13 cover.
- 14 N. Prepare all surfaces affected by this work to an SSPC-SP3, Power Tool
15 Cleaning. Apply two (2) coats of Benjamin Moore Low Cure Epoxy
16 Mastic M45L/M4684, Off White, to obtain a minimum of, 3 mils (DFT)
17 each to all prepared surfaces. Hand stripe all edges. Apply a topcoat of
18 Benjamin Moore Aliphatic Acrylic Urethane DM74/DM7585, 2-4 mils
19 DFT, to cover, on exterior surfaces with the exception of the house top
20 which shall be top coated with American Safety non-skid to match the
21 color and texture of existing house top.

22 **4. SECURITY SYSTEM INSTALLATION**
23 {SECURITY}

- 24 A. Install security modifications shown on **WSF Dwg. 8601-639-090-01**,
25 M/V Rhododendron, Electronic Equipment Room Electrical Installation
26 Passenger Deck, No. 2 End, **WSF Dwg. 8601-639-095-01**, M/V
27 Rhododendron, Homeland Security Plan, **WSF Dwg. 8601-639-095-03**,
28 M/V Rhododendron, Homeland Security Typical Wiring Diagram
29 Standard, **WSF Dwg. 8601-639-095-02**, M/V Rhododendron Homeland
30 Cabling & Wiring Diagram, and **WSF Dwg. 8000-639-095-02**, All
31 Vessels Homeland Security Plan Typical Foundations Standard. Note
32 WSF supplied Items on **Dwg. 8601-639-095-02**.

33 **NOTE:**

34 Wherever new penetrations are required they shall maintain the watertight and
35 fire ratings of the bulkhead or deck being penetrated. Existing non-poured
36 bulkhead and deck penetrations may be reused for power cables only, New Multi-
37 Cable Transits shall be Nelson type. Test all deck, bulkhead and hull penetrations
38 in company with and to the satisfaction of the **USCG and WSF Inspector, and**
39 **the Staff Chief Engineer.**

- 40 B. Remove and reinstall all interferences necessary to complete this Item,
41 including but not limited to, insulation, bulkhead panels and overhead
42 panels.

- 1 C. Fabricate equipment cabinet and electronic security devices foundations
2 and camera mounts in the locations shown on **WSF Dwg. 8601-639-090-**
3 **01, WSF Dwg. 8601-639-095-01, and WSF Dwg. 8000-639-095-02.**
- 4 D. Install new cables required by **WSF Dwg. 8601-639-090-01, WSF Dwg.**
5 **8601-639-095-01, WSF Dwg. 8601-639-095-03 and WSF Dwg. 8601-**
6 **639-095-02.** Insure cables and wires installed by this Item are run,
7 segregated, marked, and continuity tests are made in accordance with
8 **Attachment No. 2, WSF 002, Electrical Installation Specification.** All
9 data cables shall be run in a separate wireway with a minimum of twelve
10 inches (12") of separation from all high voltage cables. Prior to installing
11 any fiber optic cables perform an OTDR test and submit results to the
12 WSF Inspector. Perform a second OTDR on the fiber cables after
13 installation. Compare the results to the pretest and submit results to the
14 WSF Inspector.
- 15 E. Obtain the services of ABSCO Alarms (206) 367-1166 to make all
16 connections and demonstrate the operation of the system.
- 17 F. Install stud runs, wireways and penetrations, run cables and install the
18 security hardware and electrical components.
- 19 G. Replace all disturbed structural, thermal, and acoustical insulation to
20 match original installation.
- 21 H. Prepare all interior surfaces affected by this work to an SSPC-SP3, Power
22 Tool Cleaning. Apply one (1) coat International Intertuf 262, Buff to a
23 minimum to obtain 6 to 8 mils (DFT) to all new surfaces and prepared
24 surfaces. Hand-stripe all edges. Top-coat with Intercare 755, to a
25 minimum of 2 mils (DFT) to match surrounding.
- 26 I. Prepare all exterior surfaces affected by this work to an SSPC-SP3, Power
27 Tool Cleaning. Apply one (1) coat Benjamin Moore Low Cure Epoxy
28 Mastic M45L/M4684, Off White, to obtain a minimum of, 3 mils (DFT)
29 each to all prepared surfaces. Hand stripe all edges, Top-coat with
30 Benjamin Moore Aliphatic Acrylic Urethane DM74/DM7585, 2-4 mils
31 DFT, to cover. Color same as existing one.

32 **5. CELLULAR TELEPHONE INSTALLATION**
33 **{IT}**

- 34 A. Install new Cellular Telephone System as shown on **WSF Dwg. 8601-**
35 **642-095-02, M/V Rhododendron, Cellular Phone Installation.** Develop
36 cable routing for the Cat 5E cables prior to installation and provide to the
37 WSF Inspector for approval.

NOTE:

Wherever new penetrations are required they shall maintain the watertight and fire ratings of the bulkhead or deck being penetrated. Existing non-poured bulkhead and deck penetrations may be reused. New Multi-Cable Transits shall be Nelson type. Test all deck, bulkhead and hull penetrations in company with and to the satisfaction of the USCG and WSF Inspector, and the Staff Chief Engineer.

- B. Remove and reinstall all interferences necessary to complete this Item.
- C. Install new cables required by **WSF Dwg. 8601-642-095-02**. Insure cables and wires installed by this Item are run and marked, and continuity tests are made in accordance with **Attachment No. 3, WSF 003, General Construction Requirements**.
- D. Remove all equipment from the existing Cell Phone enclosure as **Category "A"** and return to the WSF Inspector. Existing cables feed to EOS shall be retained in accordance with **WSF Dwg. 8601-642-095-02**.
- E. Install foundations and enclosures in accordance with on **WSF Dwg. 8601-642-095-02**. Welding shall be in accordance with **Attachment No. 3**.
- F. Remove existing antennas; install new antenna foundations and antennas in accordance with **WSF Dwg. 8601-642-095-02**.
- G. The Contractor shall provide the services of NetVersant, Phone Number: 206-774-7100 to mount the equipment, perform final terminations and system check out.
- H. Prepare all surfaces affected by this work to an SSPC-SP3, Power Tool Cleaning. Coat with one (1) coat of INTERNATIONAL Intertuf 262 Epoxy, 5 mils (DFT); apply a topcoat of INTERNATIONAL Intercare to a minimum of 2 mils (DFT) to match existing color.

6. PILOT HOUSE HARDENING

{SECURITY}

- A. Install Pilothouse security barriers at the #1 and #2 End Passenger Deck level as shown on **WSF Dwg. 8601-639-005-01**, M/V Rhododendron, Pilothouse Security Modifications, as in this Specification.
- B. Remove and reinstall all interferences necessary to complete this Item, including but not limited to, insulation, bulkhead panels and overhead panels.

- C. Prepare all interior surfaces affected by this work to an SSPC-SP3, Power Tool Cleaning. Apply one (1) coat International Intertuf 262, Buff to a minimum to obtain 6 to 8 mils (DFT) to all new surfaces and prepared surfaces. Hand-stripe all edges. Top-coat with Intercare 755, to a minimum of 2 mils (DFT) to match surrounding.
- D. Apply one (1) coat of Far West Formula 117, at 2-3 mils (DFT) to all prepared galvanized, stainless steel and aluminum surfaces prior to top coating. Apply one (1) coat Benjamin Moore Low Cure Epoxy Mastic M45L/M4684, Off White, to obtain a minimum of, 3 mils (DFT) each to all prepared surfaces. Hand stripe all edges, Top-coat with Benjamin Moore Aliphatic Acrylic Urethane DM74/DM7585, 2-4 mils DFT, to cover. Color same as existing one.
- E. Prepare all exterior surfaces affected by this work to an SSPC-SP3, Power Tool Cleaning. Apply one (1) coat Benjamin Moore Low Cure Epoxy Mastic M45L/M4684, Off White, to obtain a minimum of, 3 mils (DFT) each to all prepared surfaces. Hand stripe all edges, Top-coat with Benjamin Moore Aliphatic Acrylic Urethane DM74/DM7585, 2-4 mils DFT, to cover. Color same as existing one.

7. LOCAL AREA NETWORK INSTALLATION {IT}

- A. Install new cables, LAN and antennas as shown on **WSF Dwg. 8601-642-095-01**, M/V Rhododendron, Super-LAN/ Security & Surveillance/ Wireless Over Water Installation and **WSF Dwg. 8601-642-095-02**, M/V Rhododendron, Cellular Telephone Installation. Develop cable routing for the fiber optic and Cat 5E cables.

NOTE:

Wherever new penetrations are required they shall maintain the watertight and fire ratings of the bulkhead or deck being penetrated. Existing non-poured bulkhead and deck penetrations may be reused. New Multi-Cable Transits shall be Nelson type. Test all deck, bulkhead and hull penetrations in company with and to the satisfaction of the USCG and WSF Inspector, and the Staff Chief Engineer.

- B. Remove and reinstall all interferences necessary to complete this Item, including but not limited to, Insulation, bulkhead panels and overhead panels.
- C. Install new cables required by **WSF Dwg. 8601-642-095-01**. Perform a OTDR on the cables after installation. Compare the results to the manufactures recommendations submit results to the WSF Inspector.
- D. Insure cables and wires installed by this Item are run, segregated, marked, and continuity tests are made in accordance with **WSF Dwg. 8601-642-095-01** and **Attachment No. 2**.

- 1 E. Provide and install cable and power to the UPS's from the distribution
2 panels. Cable shall be terminated at a standard duplex outlet.
- 3 F. Install foundations and antennas as required on **WSF Dwg. 8601-642-095-**
4 **01**, welding shall be in accordance with **Attachment No. 3**. Foundations
5 shall be installed for all Items identified as Owner Furnished Equipment
6 (OFE) 1, 2, and 3.
- 7 G. Install coax from the radio enclosures to the antenna foundations.
- 8 H. Provide the services of NetVersant, Phone Number: 206-774-7100 to
9 mount the OFE equipment, perform final terminations and system check
10 out.
- 11 I. Assume approximately fifteen (15) working days for termination and
12 commissioning of the system.
- 13 J. Prepare all interior surfaces affected by this work to an SSPC-SP3, Power
14 Tool Cleaning. Coat with one (1) coat of INTERNATIONAL Intertuf 262
15 Epoxy, 5 mils (DFT); apply a topcoat of INTERNATIONAL Intercare to a
16 minimum of 2 mils (DFT) to match existing color.
- 17 K. Prepare all exterior surfaces affected by this work to an SSPC-SP 3, Power
18 Tool Cleaning. Coat with one (1) coat of Benjamin Moore Low Cure
19 Epoxy Mastic M45L/M4684, Off White, to obtain a minimum of, 4-8 mils
20 (DFT) to all prepared surfaces. Hand stripe all edges. Apply a topcoat of
21 Benjamin Moore Aliphatic Acrylic Urethane DM74/DM7585, 2-4 mils
22 DFT, to cover, on all surfaces. Color same as existing one.
- 23 L. Apply one (1) coat of Far West Formula 117, at 2-3 mils (DFT) to all
24 prepared galvanized and aluminum surfaces prior to top coating. Apply
25 one (1) coat Benjamin Moore Low Cure Epoxy Mastic M45L/M4684, Off
26 White, to obtain a minimum of, 3 mils (DFT) each to all prepared
27 surfaces. Hand stripe all edges, Top-coat with Benjamin Moore Aliphatic
28 Acrylic Urethane DM74/DM7585, 2-4 mils DFT, to cover. Color same as
29 existing one.

30 **8. PIPING - PIPING SYSTEMS TEST COUPONS**

31 {PIPING REPLACEMENT}

- 32 A. Remove/harvest piping system coupons as set forth in **TABLE 8-1** below:

33 **NOTE:**

34 A "pipe coupon" is defined as a section of pipe of approximately twelve inches
35 (12") in length removed from an existing, designated piping system. The intent is
36 to remove a designated "coupon" utilizing threaded and/or mechanical joints at
37 one (1) End to the greatest extent as is practicable. The new pipe can then be, for
38 example, threaded at one (1) End and a new appropriate joint made up at the other
39 End to make the system tight again.

NOTE:

The WSF Representative will assist the shipyard in determining the location of each coupon based on TABLE 8-1. Pipe coupons shall be removed from areas of suspect for corrosion problems due to their location and configuration.

	TABLE 8-1			
Item No.	Service	Size	Qty	Location
1	Flushing Water Discharge	1¼"	1	Engine Room
2	Bilge Manifold to Manifold Cross Connect	4"	1	Engine Room
3	Bilge Suction	2½"	1	#1 Tank Room
4	Bilge Suction	2½"	1	#2 Tank Room
5	Bilge Overboard Discharge	4"	1	Engine Room
6	Bilge Pump Suction	4"	1	Engine Room
7	Vehicle Deck Sprinkling	2½"	1	Engine Room
8	Vehicle Deck Sprinkling	1¼"	1	Vehicle Deck
9	Vehicle Deck Sprinkling	1½"	1	Vehicle Deck
10	Vehicle Deck Sprinkling	¾"	1	Vehicle Deck
11	Vehicle Deck Sprinkling	1"	1	Vehicle Deck
12	Potable Water	¾"	1	#1 End Crews Qtrs.
13	Potable Water	1"	1	Casing
14	Potable Water	2"	1	#2 Tank Room
15	Fire Main	4"	1	Crews Quarters
16	Fire Main	4"	1	Engine Room

B. Renew piping in-kind to that removed.

C. All renewals shall meet U.S. Coast Guard regulations for pipe welding.

- 1 D. Operationally test the piping system coupon replacements. In addition to
2 operational testing, the entire Potable Water System shall be disinfected
3 and certified in accordance with applicable regulations.
- 4 E. Prepare, coat, and restore insulation in way of all piping system coupon
5 replacement areas to match existing.
- 6 F. Label and deliver all removed piping system coupons to the WSF
7 Representative. Coupons shall be permanently labeled with the name of
8 the Vessel, date coupon was harvested, system, and harvest location. The
9 Contractor shall fabricate and provide wooden crates, with lid, to hold all
10 removed piping coupons. Each crate shall be of 200 lbs. maximum loaded
11 weight. Pipe coupons and crate shall be handled like **Category "A"**
12 material. All coupons shall be stored in this crate and upon completion the
13 crate shall be loaded on WSF provided transportation for transfer to a
14 WSF warehouse at 6000, 6th Ave, Seattle for storage.

15 **9. REPLACE VEHICLE DECK STEEL**

16 {STEEL REPLACEMENT}

17 A. GENERAL

- 18 1. The intent of this Work Item described is to specify the general and
19 specific requirements for replacement of vehicle deck steel.
- 20 B. Clean and gas free all spaces associated with the Work, as necessary, and
21 obtain a Marine Chemist Certificate for "SAFE FOR WORKERS", and
22 "SAFE FOR HOT WORK" for the same. Maintain the certificate during
23 the course of the Work. Provide fire watches as required.
- 24 C. Crop out and renew vehicle deck steel as laid out by the WSF Inspector.
- 25 D. All new steel shall be ABS Grade A or B. Steel shapes shall meet ASTM
26 Standard A-36 requirements. All new steel shall be wheel-abraded or grit
27 blasted to SSPC SP-10 and immediately primed with weld through primer
28 that is compatible with the Vessel's coating system.
- 29 E. Beam/stringer to plate connections shall be continuous welded to both
30 sides in all areas of new deck steel.
- 31 F. Provide ABS mill certification, and ASTM certification for all new steel
32 prior to moving steel onboard.

- 1 G. Remove and replace all interferences as required to complete this Item.
2 The Contractor shall use protective fireproof cloth to protect the areas
3 below the Vehicle Deck inserts. Any damage to the paint from this hot
4 work shall be repaired and painted by the Contractor. All debris
5 associated with this Work shall be cleaned by the Contractor to the level
6 of cleanliness of spaces prior to start of Work.
- 7 H. H. Test all new welds to the satisfaction of the USCG and the WSF
8 Inspector.
- 9 I. Prepare to an SSPC-SP 3, Power Tool Cleaning, all areas of paint, yellow
10 safety striping and non-skid damaged as a result of this Work Item, and
11 coat with one (1) coat Sherwin-Williams, Macropoxy 646, 5-10 mils
12 (DFT) Haze Gray, to the areas 1 day prior to applying non-skid. Apply
13 one (1) coat of Non-Skid Sherwin-Williams / American Safety AS-250
14 Haze Gray. Apply at 40 sq. ft. per gallon.
- 15 J. The interior side of new steel shall be coated with one (1) coat of
16 INTERNATIONAL Intertuf 262 Epoxy, 5 mils (DFT). Hand stripe all
17 edges. Apply a topcoat of INTERNATIONAL Intercare to a minimum of
18 2 mils (DFT) to match existing color.
- 19 K. The safety striping, MES access lane stripes and stencils and auto lane
20 markings are to be coated with a minimum 2-3 mils (DFT), to cover with,
21 Sherthane 2K, as detailed in **Attachment No. 1** upon completion of the
22 non-skid application.
- 23 L. Develop sketches showing the exact locations of all steel repairs by frame
24 numbers and square footage. Provide four (4) copies of all sketches to the
25 WSF Inspector.

26
27 **NOTE:**

28 For bidding purposes assume **500 sq ft** of deck plate renewal, with **250 sq ft** being
29 under the lane dividing curbing and **250 sq ft** along outboard bulwarks and fifty
30 (50) local pits clad welded. The Contract Price will be adjusted upward or
31 downwards to reflect any difference in area completed.

1 **TOPSIDE PREPARATION AND PAINTING**

2 **TOPSIDE ZONE DESCRIPTIONS**

3 M/V Rhododendron is divided into eight (8) Zones for inspection, surface
4 preparation, painting, and bidding purposes. Not all areas in each Zone may
5 require work by these Specifications. Each Specification Item stands alone.

6 **NOTE:**

7 Prior to commencing surface preparation, the Contractor will present all areas of
8 protective measures taken to prevent harm or damage to Vessel's equipment,
9 other surfaces and systems for inspection by the WSF Inspector and the Vessel
10 Staff Chief Engineer.

11 **Zone No. 1** Navigation Bridge Deck exterior surfaces, beginning at the top
12 edge of the Fascia Plate above the Passenger Cabin windows and
13 extending to the top of the Masts. All exterior surfaces of No. 1
14 and No. 2 End Pilothouses, midship house exhaust stacks, doors,
15 clerestories, vent louvers, vent trunks, ladders (and pans where
16 present), equipment foundations, battery boxes, deck edge
17 coaming, navigational light screens and brackets, Pilothouse
18 dodgers, safety equipment brackets, vestibules, Masts and all other
19 appurtenances.

20 **Zone No. 2** Passenger Deck exterior surfaces (outside of the Passenger Cabin)
21 from the Passenger Deck level to the top edge of the Fascia Plate
22 above the Passenger Cabin windows and below the Navigation
23 Bridge Deck handrails. Includes all weather surfaces of Passenger
24 Cabin, Crew Cabin and Pilot House exteriors, overhang above the
25 windows, drain pipes and hangers, all boat stations, passenger
26 benches, all attachments and appurtenances, ladders (and pans
27 where present), overhangs, bulwarks, bulkheads, fire stations,
28 doors and passenger seating.

29 **Zone No. 3** Port and Starboard Curtain Plating from the outboard top
30 horizontal surface of the rubrail to the Passenger Deck level and
31 from the Curtain Plate extremes at No. 1 and No. 2 End, including
32 the anchor stowage area and anchor, hawser pipe, fixtures, vents
33 and louvers.

- | | | |
|----|----------------------------------|--|
| 1 | Zone No. 4 | Auto (Main) Deck outboard auto lanes, Port and Starboard Curtain |
| 2 | | Plate inboard surface areas, overhead areas, inboard and thwartship |
| 3 | | bulkheads, coamings, haunch girders, life jacket (PFD) lockers |
| 4 | | (interior and exterior surfaces) and the Outboard Machinery Casing |
| 5 | | and overhead extending from No. 1 to No. 2 End extremes, |
| 6 | | curbing, cleats, bollards, chocks, tie downs, stanchions, light |
| 7 | | fixtures, bells, speakers, fire hose stations, fire extinguisher boxes |
| 8 | | and stations, ventilation ducting, vent louvers, piping, fueling |
| 9 | | stations, MES launching stations, vent piping, and all |
| 10 | | appurtenances. |
| 11 | Zone No. 5 | Deck surface areas. Includes Navigation Bridge Deck, Pilothouse |
| 12 | | side., and all housetops, Passenger Deck, Auto Deck and all |
| 13 | | ladders, stairways, landings, safety areas and non - skid. |
| 14 | Zone No. 6 | Stairway vertical and overhead surfaces from Auto (Main) Deck to |
| 15 | | the first landing outboard of the double fire screen doors. |
| 16 | Zone No. 7 | Signs, stencils, markings, label plates, safety striping, and dadoes, |
| 17 | | on all interior and exterior surfaces of Zone Nos. 1 through 6. |
| 18 | Zone No. 8 | Handrails, railings, screens, and gates on all decks, ladders, |
| 19 | | stairwells, companionways, walkways Auto (Main) Deck to the top |
| 20 | | of the Masts. |
| 21 | 10. DECK DRAINS | |
| 22 | {STRUCTURAL PRESERVATION} | |
| 23 | A. | Clean and test all weather deck drains for flow in the presence of the |
| 24 | | Vessel Staff Chief Engineer and the WSF Inspector prior to commencing |
| 25 | | with the fresh water wash. |
| 26 | B. | Ensure that weather deck drains are securely covered during grit blasting |
| 27 | | operations. |
| 28 | C. | Provide labor material and equipment to retest the weather deck drains for |
| 29 | | flow in the presence of the Vessel Staff Chief Engineer and the WSF |
| 30 | | Inspector upon completion of painting and clean up work. Plugged drains |
| 31 | | found shall be cleaned and reopened at the Contractor's expense. |

1 **11. FRESH WATER WASH**
2 **{STRUCTURAL PRESERVATION TOPSIDE}**

- 3 A. Low Pressure Water Detergent Cleaning (LP WC) at 3,000 - 5,000 PSI to
4 achieve a condition of SC-1 in accordance with Table 2 (Non-visual
5 Surface Preparation Definitions) in SSPC-SP 12/NACE 5 Publication, in
6 all Zones using Benjamin Moore Oil & Grease Emulsifier M83. The
7 wand shall be held no more than twelve inches (12") from surface being
8 washed. The intent of this Work Item is to wash all surfaces in all Zones
9 as described in the ZONE DESCRIPTION for Topside Painting.
- 10 B. Inspect the entire fresh water wash to the satisfaction of the WSF
11 Inspector prior to proceeding with any grit blasting or painting.

12 **12. PREPARATION AND PAINTING OF ZONE NO. 1 (NAV BRIDGE**
13 **DECK AND ABOVE EXTERIOR SURFACES)**
14 **{STRUCTURAL PRESERVATION TOPSIDE}**

- 15 A. Grit blast all areas of abrasion and corrosion to SSPC-SP 6, Commercial
16 Blast Cleaning as authorized by the WSF Inspector. Work includes
17 removal of all bolt-on plumb vent covers, door stops, hold backs, and
18 plug-in boxes. Reinstall all removed Items after final coat using new,
19 Contractor furnished, Type 316L stainless steel fasteners.

20

21 **NOTE:**

22 For bidding purposes, assume that **500 Square Feet (SF)** shall require grit
23 blasting. Upon completion of the preparation and painting, the Contract will be
24 adjusted upward or downward to account for the actual area authorized by the
25 WSF Inspector.

- 26 B. Apply one (1) coat of Benjamin Moore Low Cure Epoxy Mastic
27 M45L/M4684, off white, to obtain a minimum of 6.0 mil Dry Film
28 thickness, to grit blasted areas.

- 29 C. The back sides, corners and sharp edges of all angles, rat holes, scallops
30 and beams shall be hand-striped, using the brush method, with an
31 additional 4-8 mils (DFT) of Benjamin Moore Low Cure Epoxy Mastic
32 M45L/M4684.

- 33 D. Wash down all grit blast residues using Low Pressure Water Clean (LP
34 WC) at 3,000 – 5,000 PSI. The intent of this Item is to wash surfaces after
35 spot blasting and prime coating prior to top coating.

- 36 E. Apply one (1) full tie coat of Benjamin Moore Low Cure Epoxy Mastic
37 M45L/M4684, minimum 4 mils DFT color off white to cover, on all
38 surfaces of Zone No. 1.

- 1 F. Apply one (1) full coat Benjamin Moore Aliphatic Acrylic Urethane
2 DM74/DM7585, WSF Blue White, minimum 2 mils to 3 mils DFT, to
3 cover, on all surfaces of Zone No. 1. Colors shall be as detailed in
4 **Attachment No. 1.**

5 **13. PREPARATION AND PAINTING OF ZONE NO. 2 (PASSENGER**
6 **DECK EXTERIOR)**
7 **{STRUCTURAL PRESERVATION TOPSIDE}**

- 8 A. Grit blast all areas of abrasion and corrosion to SSPC-SP 6, Commercial
9 Blast Cleaning as authorized by the WSF Inspector. Work includes
10 removal of all bolt-on plumb vent covers, door stops, hold backs, and
11 plug-in boxes. Reinstall all removed Items after final coat using new,
12 Contractor furnished, Type 316L stainless steel fasteners.

13 **NOTE:**

14 For bidding purposes, assume that **500 Square Feet (SF)** shall require grit
15 blasting to SSPC-SP 6, Commercial Blast Cleaning. Upon completion of the
16 preparation and painting, the Contract will be adjusted upward or downward to
17 account for the actual area authorized by the WSF Inspector.

- 18 B. Apply one (1) coat of Benjamin Moore Low Cure Epoxy Mastic
19 M45L/M4684, off white, to obtain a minimum of 6.0 mil Dry Film
20 thickness, to grit blasted areas.

- 21 C. The back sides, corners and sharp edges of all angles, rat holes, scallops
22 and beams shall be hand-striped, using the brush method, with an
23 additional 4-8 mils (DFT) of Benjamin Moore Low Cure Epoxy Mastic
24 M45L/M4684.

- 25 D. Wash down all grit blast residues using Low Pressure Water Clean (LP
26 WC) at 3,000 – 5,000 PSI. The intent of this Item is to wash surfaces after
27 spot blasting and prime coating prior to top coating.

- 28 E. Apply one (1) full tie coat of Benjamin Moore Low Cure Epoxy Mastic
29 M45L/M4684, minimum 4 mils DFT color off white to cover, on all
30 surfaces of Zone No. 2.

- 31 F. Apply one (1) full coat Benjamin Moore Aliphatic Acrylic Urethane
32 DM74/DM7585, to cover, on all surfaces of Zone No. 2. Colors shall be
33 as detailed in **Attachment No. 1.**

1 **14. PREPARATION AND PAINTING OF ZONE NO. 3, (PORT AND**
2 **STBD CURTAIN PLATING)**
3 **{STRUCTURAL PRESERVATION TOPSIDE}**

- 4 A. Grit blast all areas of abrasion and corrosion to SSPC-SP 6, Commercial
5 Blast Cleaning as authorized by the WSF Inspector. Work includes
6 removal of all bolt-on plumb vent covers, door stops, hold backs, and
7 plug-in boxes. Reinstall all removed Items after final coat using new,
8 Contractor furnished, Type 316L stainless steel fasteners.

9 **NOTE:**

10 For bidding purposes, assume that **1,500 Square Feet (SF)** shall require grit
11 blasting to SSPC-SP 6, Commercial Blast Cleaning. Upon completion of the
12 preparation and painting, the Contract will be adjusted upward or downward to
13 account for the actual area authorized by the WSF Inspector.

- 14 B. Apply one (1) coat of Benjamin Moore Low Cure Epoxy Mastic
15 M45L/M4684, off white, to obtain a minimum of 6.0 mil DFT, to grit
16 blasted areas.
- 17 C. The back sides, corners and sharp edges of all angles, rat holes, scallops
18 and beams shall be hand-striped, using the brush method, with an
19 additional 4-8 mils (DFT) of Benjamin Moore Low Cure Epoxy Mastic
20 M45L/M4684.
- 21 D. Wash down all grit blast residues using Low Pressure Water Clean (LP
22 WC) at 3,000 – 5,000 PSI. The intent of this Item is to wash surfaces after
23 spot blasting and prime coating prior to top coating.
- 24 E. Apply one (1) full tie coat of Benjamin Moore Low Cure Epoxy Mastic
25 M45L/M4684, minimum 4 mils DFT color off white to cover, on all
26 surfaces of Zone No. 3.
- 27 F. Apply one (1) full coat Benjamin Moore Aliphatic Acrylic Urethane
28 DM74/DM7585, minimum 2 mils to 3 mils DFT, to cover, on all surfaces
29 of Zone No. 3. Colors shall be as detailed in **Attachment No. 1.**

1 **15. PREPARATION AND PAINTING OF ZONE NO. 4 (INTERIOR**
2 **STRUCTURE)**
3 **{STRUCTURAL PRESERVATION TOPSIDE}**

- 4 A. Grit blast all areas of abrasion and corrosion to SSPC-SP 6, Commercial
5 Blast Cleaning as authorized by the WSF Inspector. Work includes
6 removal of all bolt-on plumb vent covers, door stops, hold backs, and
7 plug-in boxes. Reinstall all removed Items after final coat using new,
8 Contractor furnished, Type 316L stainless steel fasteners.

9 **NOTE:**

10 For bidding purposes, assume that **1,500 Square Feet (SF)** shall require grit
11 blasting to SSPC-SP 6, Commercial Blast Cleaning. Upon completion of the
12 preparation and painting, the Contract will be adjusted upward or downward to
13 account for the actual area authorized by the WSF Inspector.

14 **NOTE:**

15 Areas of the vehicle deck overhead are covered with light weight galvanized sheet
16 metal. Care shall be taken as to not destroy or distort this material during
17 preparation work.

- 18 B. Grit blast the inboard and outboard curbing and out approximately
19 eighteen inches (18") of the deck area from No. 1 End to No. 2 End
20 extremes, to SSPC-SP 6, Commercial Blast Cleaning. Work includes
21 raising of cables in the strap type hangers and grit blasting of these wire
22 ways.

- 23 C. Apply one (1) coat of Far West Formula 117, at 2-3 mils (DFT) to all
24 galvanized surfaces prepared by blasting.

- 25 D. Apply one (1) coat of Benjamin Moore Low Cure Epoxy Mastic
26 M45L/M4684, off white, to obtain a minimum of 6.0 mil DFT, to grit
27 blasted areas.

- 28 E. The back sides, corners and sharp edges of all angles, rat holes, scallops
29 and beams shall be hand-striped, using the brush method, with an
30 additional 4-8 mils (DFT) of Benjamin Moore Low Cure Epoxy Mastic
31 M45L/M4684.

- 32 F. Wash down all grit blast residues using Low Pressure Water Clean (LP
33 WC) at 3,000 – 5,000 PSI. The intent of this Item is to wash surfaces after
34 spot blasting and prime coating prior to top coating.

- 35 G. Apply one (1) full tie coat of Benjamin Moore Low Cure Epoxy Mastic
36 M45L/M4684, minimum 4 mils DFT color off white to cover, on all
37 surfaces of Zone No. 4.

- 38 H. Apply one (1) full coat Benjamin Moore Aliphatic Acrylic Urethane
39 DM74/DM7585, minimum 2 mils to 3 mils DFT, to cover, on all surfaces
40 of Zone No. 4. Colors shall be as detailed in **Attachment No. 1.**

1 **16. PREPARATION AND PAINTING OF ZONE NO. 5. (DECKS)**
2 **{STRUCTURAL PRESERVATION TOPSIDE}**

3 **A. CURBING**

- 4 1. Remove all raised lane dividing curbing on the vehicle deck. Grit
5 blast 100% of the curbing to an SSPC-SP 6, Commercial Blast
6 Cleaning. Upon completion of coating and deck coating, reinstall
7 curbing using new 316 Stainless Steel bolts.
- 8 2. Grit blast 100% of all fixed curbing to an SSPC-SP 6, Commercial
9 Blast Cleaning.
- 10 3. Apply one (1) coat of Sherwin-Williams, Corothane I Galva-Pac
11 Zinc, Gray, to obtain a minimum of 3-4 mils DFT, to all grit
12 blasted surfaces. Zinc must be sprayed to meet specification for
13 blasted steel.
- 14 4. Wash down all grit blast residues using Low Pressure Water Clean
15 (LP WC) at 3,000 – 5,000 PSI. The intent of this Item is to wash
16 surfaces after spot blasting and prime coating prior to top coating
17 let air dry.
- 18 5. Apply one (1) coat Sherwin-Williams, Macropoxy 646, 5-10 mils
19 (DFT) Haze Gray, to the areas one day (1) prior to applying non-
20 skid. Provide labor, material and equipment to apply one (1) coat
21 of Non-Skid Sherwin-Williams / American Safety, Safety Yellow.
22 Apply at 40 sq. ft. per gallon.

23 **B. DECKS**

- 24 1. Remove and dispose of all the existing tile and underlayment from
25 the landing at the top of the lower stairs to the fire screen doors at
26 both number 1 and Number 2 Ends. Prepare deck to SSPC-SP6,
27 Commercial Blast Cleaning with a track blaster the upper and
28 lower stairway landings at both Number 1 and Number 2 Ends.
29 Remove all traces of blast beads from all areas of the Vessel.
30 Areas that are inaccessible to a track blaster shall be prepared to
31 SSPC-SP3, Power Tool Cleaning. Apply one (1) coat Sherwin-
32 Williams, Macropoxy 646, 5-10 mils (DFT) Haze Gray, to the
33 areas 1 day (1) prior to applying non-skid. Apply one (1) coat of
34 Non-Skid Sherwin-Williams / American Safety to match existing.
35 Apply at 40 sq. ft. per gallon.
- 36 2. Install stainless steel transition strip between non-skid and existing
37 tile.

- 1 3. Grit blast all deck areas of active corrosion on all, Auto (Main)
2 Deck, Passenger Deck, House tops, Pilot House tops, Midship
3 House tops. walkways and all ladders, stairways, landings, and
4 safety areas to an SSPC-SP 6, Commercial Blast Cleaning.

5 **NOTE:**

6 For bidding purposes for Items B 2 - B 4 of this Item, assume that **2,000 Square**
7 **Feet (SF)** shall require blasting and painting. Upon completion of the preparation
8 and painting, the Contract will be adjusted upward or downward to account for
9 the actual area authorized by the WSF Inspector.

- 10 4. Apply one (1) coat of Sherwin-Williams, Corothane I Galva-Pac
11 Zinc, Gray, to obtain a minimum of 3-4 mils DFT, to all grit
12 blasted surfaces. Zinc must be sprayed to meet Specification for
13 blasted steel.
- 14 5. Wash down all grit blast residues using Low Pressure Water Clean
15 (LP WC) at 3,000 – 5,000 PSI. The intent of this Item is to wash
16 surfaces after spot blasting and prime coating prior to top coating
17 let air dry.
- 18 6. Apply one (1) coat Sherwin-Williams, Macropoxy 646, 5-10 mils
19 (DFT) Haze Gray, to the areas 1 day prior to applying non-skid.
20 Provide labor, material and equipment to apply one (1) coat of
21 Non-Skid Sherwin-Williams / American Safety AS-250 Haze
22 Gray. Apply at 40 sq. ft. per gallon.
- 23 7. Apply one (1) full coat Sherwin-Williams, Sherthane 2K, 2-3 mils
24 (DFT) to all areas in the zone that are not non-skidded. Colors
25 shall be as detailed in **Attachment No. 1**.
- 26 8. The safety striping, MES access lane stripes and stencils and auto
27 lane markings are to be coated with a minimum 2-3 mils (DFT), to
28 cover with, Sherthane 2K, as detailed in **Attachment No. 1** upon
29 completion of the non-skid application.

1 **17. PREPARATION AND PAINTING OF ZONE NO. 6 (STAIRWAY**
2 **SURFACES)**
3 **{STRUCTURAL PRESERVATION TOPSIDE}**

- 4 A. Prepare areas of abrasion and corrosion to SSPC-SP 6, Commercial Blast
5 Cleaning in Zone No. 6 as authorized by WSF Inspector.

6 **NOTE:**

7 For bidding purposes, assume that **1,000 Square Feet (SF)** shall require grit
8 blasting to SSPC-SP 6, Commercial Blast Cleaning. Upon completion of the
9 preparation and painting, the Contract will be adjusted upward or downward to
10 account for the actual area authorized by the WSF Inspector.

- 11 B. Apply one (1) coat of Benjamin Moore Low Cure Epoxy Mastic
12 M45L/M4684, gray, to obtain a minimum of 6.0 mil DFT, to grit blasted
13 areas.

- 14 C. The back sides, corners and sharp edges of all angles, rat holes, scallops
15 and beams shall be hand-striped, using the brush method, with an
16 additional 4-8 mils (DFT) of Benjamin Moore Low Cure Epoxy Mastic
17 M45L/M4684.

- 18 D. Wash down all grit blast residues using Low Pressure Water Clean (LP
19 WC) at 3,000 – 5,000 PSI. The intent of this Item is to wash surfaces after
20 spot blasting and prime coating prior to top coating.

- 21 E. Apply one (1) full tie coat of Benjamin Moore Low Cure Epoxy Mastic
22 M45L/M4684, minimum 4 mils DFT color off white to cover, on all
23 surfaces of Zone No. 7.

- 24 F. Apply one (1) full coat Benjamin Moore Aliphatic Acrylic Urethane
25 DM74/DM7585, minimum 2 mils to 3 mils DFT, to cover, on all surfaces
26 of Zone No. 5. Colors shall be as detailed in **Attachment No. 1.**

1 **18. PREPARATION AND PAINTING OF ZONE NO. 7 (SIGNS, LABELS**
2 **AND MARKINGS)**
3 **{STRUCTURAL PRESERVATION TOPSIDE}**

- 4 A. Video, map out and record all of the Vessel stencils, marks, labels, signs,
5 placards, operating instructions, and safety striping in way of the Work in
6 Zone Nos. 1 through 8, using color photos which clearly show locations
7 and legible text. Provide one (1) complete copy of this record, in booklet
8 form, to the WSF Inspector prior to any removals, blasting and painting.
9 The Contractor is responsible for replacing, with new, all stencils, marks,
10 labels, signs, placards, placard holders, sign frames, operating instructions,
11 and safety striping, when the painting is completed. Such stencils, marks,
12 labels, signs, placards, operating instructions, and safety striping are to be
13 located, shaped, colored, and sized exactly as they were when the Vessel
14 arrived at the Contractor's facility.
- 15 B. Remove all stencils, marks, labels, signs, placards and operating
16 instructions that are fastened to the surfaces of Zone Nos. 1 through 8,
17 after mapping is completed, and prior to commencing the fresh water
18 wash. Ensure all glue, adhesive, and tape is removed from the surfaces
19 during the fresh water wash.

20 **NOTE:**

21 Masking of stencils, marks, labels, signs, placards, operating instructions, and
22 safety striping will not be allowed without prior written approval by the WSF
23 Inspector.

- 24 C. Manufacture, procure, and/or paint all new stencils, marks, labels, signs,
25 sign frames, placards, placard holders, operating instructions, safety
26 striping and dadoes. Paint used for stencils, marks, labels, signs, placards,
27 operating instructions, safety striping and dadoes must be compatible with
28 the top coat on the surface where it is applied, without wrinkling, peeling,
29 or lifting. All labeling attached with fasteners, shall have those fasteners
30 replaced with new, Contractor furnished, Type 316L stainless steel
31 fasteners.

1 **19. PREPARATION AND PAINTING OF ZONE NO. 8, (HANDRAILS**
2 **AND SCREENS)**
3 **{STRUCTURAL PRESERVATION TOPSIDE}**

- 4 A. Grit blast all none galvanized areas of abrasion and corrosion on all
5 handrails, railings, screens, and gates to a SSPC-SP 6, Commercial Blast
6 Cleaning as authorized by WSF Inspector. Brush-Off Blast Cleaning all
7 galvanized areas of abrasion and corrosion on all handrails, railings,
8 screens, and gates to a SSPC-SP 7, Commercial Blast Cleaning as
9 authorized by WSF Inspector.

10 **NOTE:**

11 For bidding purposes, assume that **250 Square Feet (SF)** shall require grit
12 blasting and painting, **250 Square Feet (SF)** shall require Brush-Off Blast
13 Cleaning and painting. Upon completion of the preparation and painting, the
14 Contract will be adjusted upward or downward to account for the actual area
15 authorized by the WSF Inspector.

- 16 B. Remove all deck railing/enclosure screens and all stairwell opening
17 screens, and replace all existing mounting fasteners on all screens with
18 new, Contractor furnished, Type 316L stainless steel fasteners, consisting
19 of hex-head bolts, two (2) flat washers for each bolt, and nylok style nuts.

- 20 C. Repair all paint damaged by deck and other removals or installations to
21 SSPC-SP3, Power Tool Cleaning. Apply one (1) coat of Benjamin Moore
22 Low Cure Epoxy Mastic M45L/M4684, 4-8 mils DFT. Hand stripe all
23 edges. Apply a topcoat of Benjamin Moore Aliphatic Acrylic Urethane
24 DM74/DM7585, to a minimum of 2-4 mils (DFT) to match existing color.

- 25 D. Apply one (1) coat of Far West Formula 117, at 2-3 mils (DFT) to all
26 galvanized, stainless steel and aluminum surfaces on hand rails, railings,
27 gates, screens, and all other galvanized, stainless steel and aluminum
28 surfaces prepared by blasting.

- 29 E. Apply one (1) coat of Benjamin Moore Low Cure Epoxy Mastic
30 M45L/M4684 to a minimum of, 6-8 mils (DFT) on all surfaces of Zone
31 No. 8.

- 32 F. Apply one (1) coat of Benjamin Moore Aliphatic Acrylic Urethane
33 DM74/DM7585, to obtain a minimum of, 2-4 mils (DFT), to cover, on all
34 surfaces in Zone No. 8. Colors shall be as detailed in **Attachment No. 1.**

1 **20. APPLICATION OF CAULKING COMPOUND**
2 **{STRUCTURAL PRESERVATION TOPSIDE}**

3 **NOTE:**

4 Caulking compound shall be Sherwin-Williams, Stampede 1, White. Caulking
5 compound is to be applied in accordance with the Sherwin-Williams
6 recommendations related to surface preparation, thickness, width, and proper cure
7 time prior to top coating with paint.

8 A. Apply caulking compound to all non-welded areas between all skip welds
9 and all pin holes in the welds, where the existing caulking is removed by
10 grit blasting or missing.

11 B. Caulking shall be applied after the application of the Benjamin Moore
12 Low Cure Epoxy Mastic M45L/M4684 and prior to the application of the
13 Benjamin Moore Aliphatic Acrylic Urethane DM74/DM7585 as the
14 topcoat.

15 **NOTE:**

16 For bidding purposes, assume that **6,000 Lineal Feet (LF)** of caulking shall be
17 required for this Work Item. Upon completion of the preparation and painting,
18 the Contract will be adjusted upward or downward to account for the actual area
19 authorized by the WSF.

20 **21. POWER TOOL CLEANING TO BARE METAL**
21 **{STRUCTURAL PRESERVATION TOPSIDE}**

22 A. Prepare various areas throughout Zone Nos. 1 through 8 to an SSPC-SP 3,
23 Power Tool Cleaning as directed by the WSF Inspector.

24 **NOTE:**

25 For bidding purposes, assume that **2,000 Square Feet (SF)** shall require SSPC-SP
26 3, Power Tool Cleaning and shall be coated with Benjamin Moore Low Cure
27 Epoxy Mastic M45L/M4684, Off White, to obtain a minimum of, 4-8 mils (DFT).
28 Upon completion of the preparation and painting, the Contract will be adjusted
29 upward or downward to account for the actual area authorized by the WSF
30 Inspector.

1 **22. PREPARATION AND PAINTING OF LANDING LIGHTS AND FIRE**
2 **EQUIPMENT**

3 **{STRUCTURAL PRESERVATION TOPSIDE}**

- 4 A. Remove the landing lights from the house fronts, and all fire equipment
5 cabinets, boxes, and apparatus, on the Navigation Bridge Deck, Passenger
6 Deck, and Auto Deck for preparation and painting of the mountings.
7 Prepare all mounts to a SSPC-SP 6, Commercial Blast Cleaning. Reinstall
8 all removed Items following preparation and painting, using new,
9 Contractor furnished, Type 316L stainless steel fasteners and nylok style
10 nuts.
- 11 B. Prepare all deteriorated surfaces of fire equipment cabinets, boxes, and
12 apparatus, to SSPC-SP 3, Power Tool Cleaning.
- 13 C. Apply one (1) coat of Far West Formula 117, at 2-3 mils (DFT) to all
14 galvanized and aluminum surfaces prepared by blasting.
- 15 D. Apply one (1) coat of Benjamin Moore Low Cure Epoxy Mastic
16 M45L/M4684, Off White, to obtain a minimum of, 4-8 mils (DFT) to all
17 prepared surfaces.
- 18 E. Apply one (1) coat Benjamin Moore Aliphatic Acrylic Urethane
19 DM74/DM7585, 2-4 mils DFT, to cover, on all surfaces. Color same as
20 existing.

21
22
23 (END)